

Work Order ID 110283

December-17-13 9:20:06 AM

110283

Page 1

Item ID: D3502-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Support

Stop

NS2

Start Date: 12/17/13

Start Qty: 12.00

12

Cust Item ID:

Required Date: 12/17/13

Req'd Qty: 12.00

12

Customer:

Reference:

M6061T6B1.000X04.000
M126351

Approvals: Process Plan:

Date: Tooling: Date:

Run Start

NR1

QC:

Date: SPC (Y/N): Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3502	Rev B								

100

100

BAND SAW

Bandsaw

Memo

0.00

0.00

Jeaspa Bandsaw

Cut blank 3.475 " long1 BLANK MAKES 2 PARTS

7 0 14/10/05

110

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

0.00

HAAS CNC vertical machine #1

1- Mill as per Folio FA649 Rev: _____ & Dwg D3502 Rev: _____ 2-Deburr
per dwg D3502

13 1 14/10/07

120

120

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

0.00

Quality Control

13 1 14/10/07

Pto -

DOA:

John

Date: 14/01/24

QA Closed:

Date: 14/1/17



WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only

FAULT CATEGORY

Landing Gear	General			
Bending	Bend	Folio/Program	Outside Dimensions	Pressure/Forced
Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance	Set-up
Cracks	Broken/Damage/Defect	Hardware	Part Incorrect	Temperature/Cure
Crimp/Kink/Ripple/Wave	Burrs	Inspection Incomplete/Unqualified	Part Lost/Missing	Weld
Cuffs	Contamination	Instructions Incomplete/Unclear	Part Moved	Wrong Stock Pulled
Crushing	Countersink	Misaligned/off center	Positioned Wrong	
Heat Treat	Cut Too Short	Mislabeled	Power Loss/Surge	Other
Inspection Strip in Tube	Drawing	Misread		
Marks/Chatter	Drill Holes	Off-set		
Turning Sequence	Finish	Out of Calibration		
Wave/Twist in Tube	Fit/Function	Out of Sequence		

Work Order ID 110283

December-17-13 9:20:06 AM

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Page 2

Item ID: D3502-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Support

Stop

NS2

Start Date: 12/17/13

Start Qty: 12.00

12

Cust Item ID:

Required Date: 12/17/13

Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

130

QC

Quality Control

QC8- Inspect parts - second check

0.00

DAS
27
9-89

14/1/9

140

140

Small Fab

Small Fab

Small Fab

0.00

DAS
27
9-89

13

DAS
36
9-89

150

150

HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

0.00

14/1/10

13

14/01/10

13

16/14/13

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector	
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved												
FAULT CATEGORY												
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function			<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence			<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge			<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Work Order ID 110283***110283***

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December-17-13 9:20:06 AM

Item ID: D3502-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Support

Start Date: 12/17/13 Start Qty: 12.00

12

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
						Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* Powdercoat Powder Coating	White Gloss(Ref.4.3.5.1) per QSI005 4.3-Alum <i>m130839</i>	0.00							<i>B φ 14-1-13.</i>
	Memo	0.00							DAS 34 9-89
	START TIME: <i>3:30</i>	OVEN TEMPERATURE: <i>400</i>							
	FINISH TIME: <i>3:30</i>								

170 *170* QC Quality Control	QC3- Inspect Part Finish	0.00	DAS 27 9-89 <i>4/1/14</i>	13
	Memo	0.00		

180 *180* Packaging Packaging	Identify as per dwg & Stock Location: <i>L6050</i>	0.00		<i>13X 28 9-89 14-01-14</i>
	Memo	0.00		

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

<p>Work Order: _____</p> <p>Part No. _____</p> <p>NCR No. _____</p>	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <hr/> <input type="checkbox"/> Other
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Work Order ID 110283

110283

Page 4

December-17-13 9:20:06 AM

Item ID: D3502-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Support

Stop

NS2

Start Date: 12/17/13 Start Qty: 12.00

12

Cust Item ID:

Required Date: 12/17/13 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00

1Qn

QC

Quality Control

Memo

0.00

14-01-15

14-01-14

DQA: _____

Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>		
NCR No. _____							

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	Bending	General	Folio/Program	Outside Dimensions	Pressure/Forced
	Centre Not Concentric		Grain	Over/Under tolerance	Set-up
	Cracks		Hardware	Part Incorrect	Temperature/Cure
	Crimp/Kink/Ripple/Wave		Inspection Incomplete/Unqualified	Part Lost/Missing	Weld
	Cuffs		Instructions Incomplete/Unclear	Part Moved	Wrong Stock Pulled
	Crushing		Misaligned/off center	Positioned Wrong	
	Heat Treat		Mislabeled	Power Loss/Surge	Other
	Inspection Strip in Tube		Misread		
	Marks/Chatter		Off-set		
	Turning Sequence		Out of Calibration		
	Wave/Twist in Tube		Out of Sequence		

Picklist Print

Page 1

December-17-13 9:20:05 AM

Work Order ID: 110283

Parent Item: D3502-1

Start Date: 12/17/13

Required Date: 12/17/13

Parent Item Name: Support

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP Rev:A New Issue 06-07-06 JLM
IPP Rev:B Add tooling hole 07-03-28
Esr rev C added DT9430 08.11.03 EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.000X04.000 6061-T6 Bar 1.00 x 4.00		Purchased	No			100	f	65.5440	0.1445	1.8252636			

Location	Loc Qty	Loc Code
MAT003	65.544	
120243	1.77	
122521	0.831	
124681	11.76675	
125272	0.07625	
M126160	24	
M126351	27.1	2.128

MM 14/04/05

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear		General									
		Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>					
		Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>					
		Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>					
		Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>					
		Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>					
		Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>						
		Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>					
		Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>							
		Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>							
		Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>							
		Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>							

DART AEROSPACE LTD	Work Order:	
Description: Support	Part Number:	D3502-1
Inspection Dwg: D3502	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

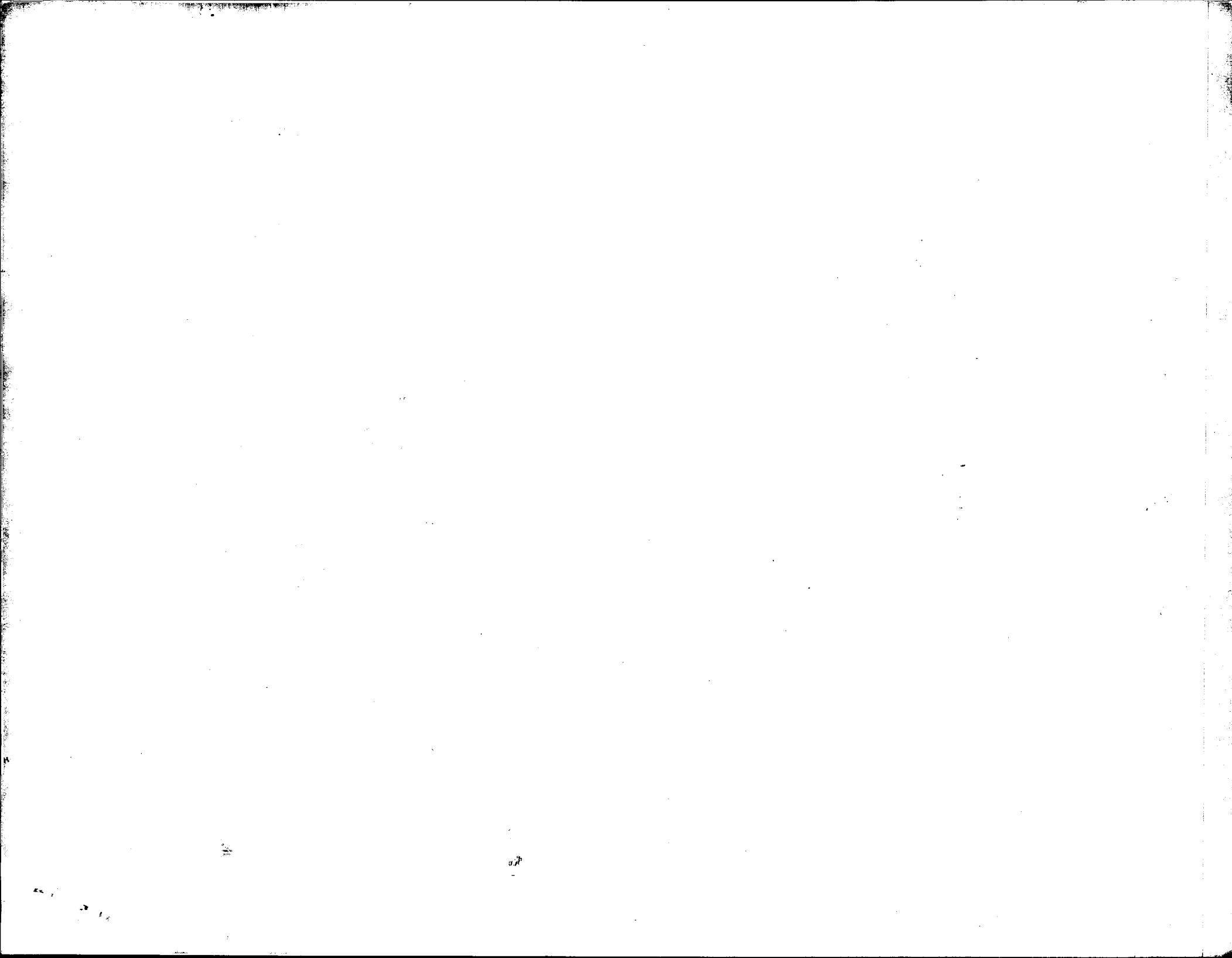
X First Article Prototype

27

0.95

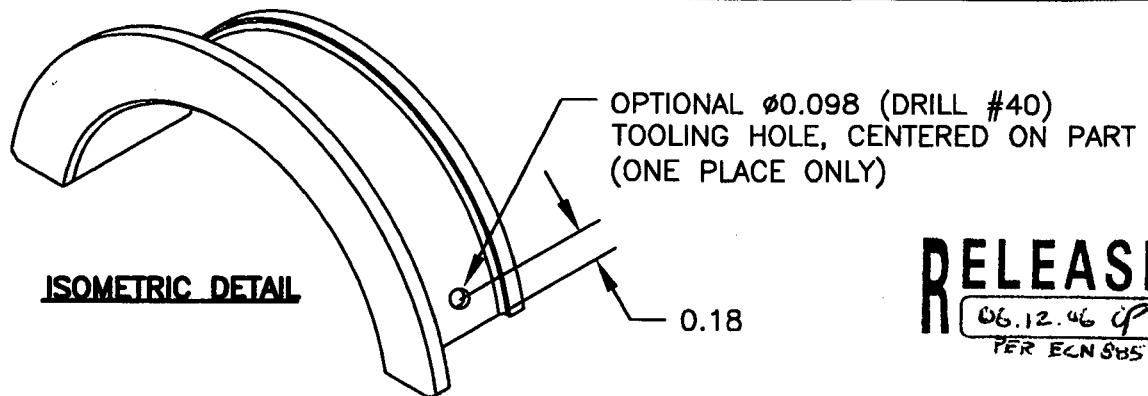
Measured by:	<i>Lew</i>	Audited by:	9-89	Prototype Approval:	N/A
Date:	14/02/07	Date:	<i>14/11/09</i>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.09.01	New Issue	KJ/JLM	
B	07.03.29	Dwg Rev. updated	KJ/JLM	

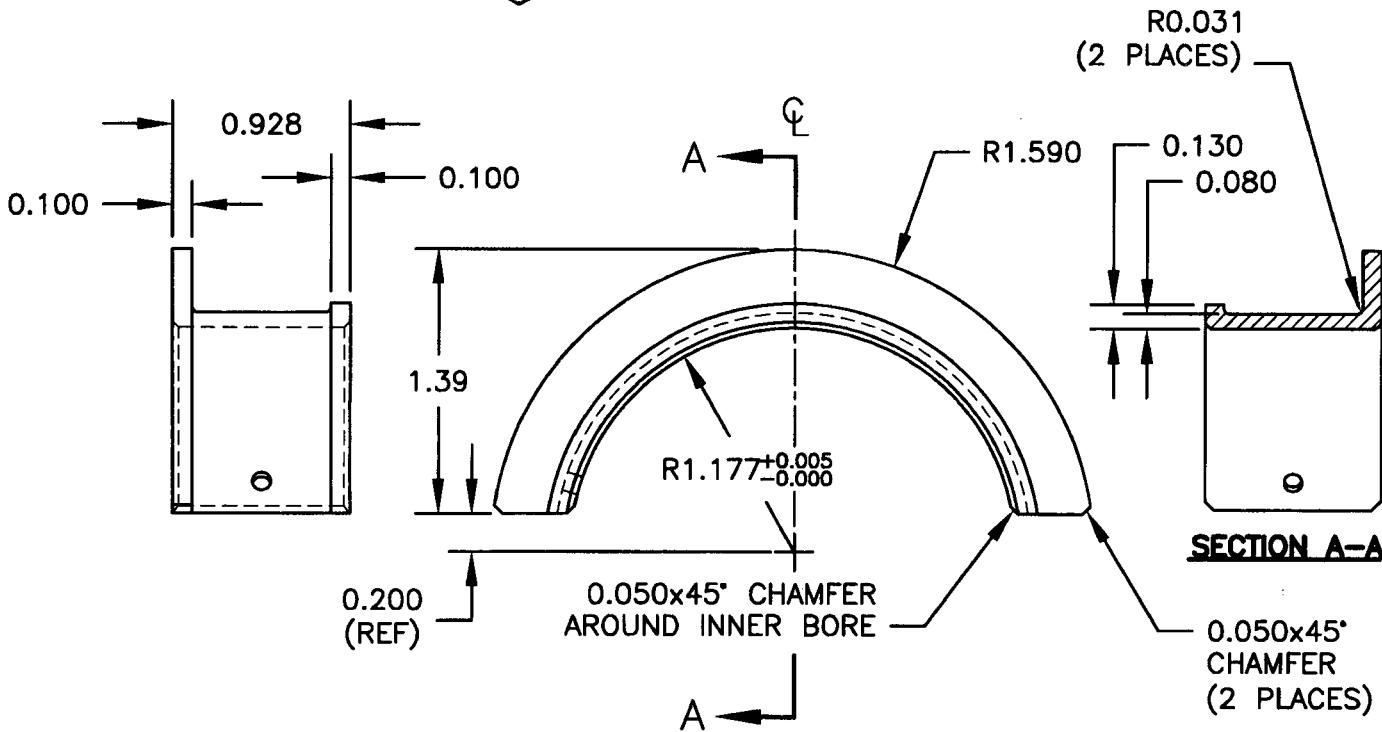


DART

DESIGN <i>GP</i>	DRAWN BY <i>GP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i> </i>	APPROVED <i> </i>	DRAWING NO. D3502	REV. B	SHEET 1 OF 1
DATE 06.10.31		TITLE SUPPORT	SCALE 1:1	
A	06.04.18	NEW ISSUE		
B	06.10.31	ADD TOOLING HOLE FOR FINISHING		



RELEASED
06.12.46 CP
PER ECN 8456



D3502-1 SUPPORT

- 1) MATERIAL: 6061-T6 ROUND BAR (REF DART SPEC. M6061T6R)
- 2) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 (REF. X.XXX = ± 0.010 , X.XX = ± 0.030) UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3

354